

REMARKS

The Examiner is thanked for the indication that claims 5, 7, 12, 14, 16, 18, 20, 25, 27, 29, 30, 31, 33, and 35-42 are allowable if rewritten in independent form and if any pertinent §112 rejections are overcome.

Claims 1-4 and 6-46 are pending in the instant application. Claims 1-4, 6, 8-17, 19, 21-29, 32, 34, 36, 38, 40, and 42 presently stand rejected. Claims 1-3, 10, 12, 14, 16, 23, 25, 27, 29, 36, 38, 40, and 42 are amended herein. Claims 43-46 are newly presented. Entry of this amendment and reconsideration of the pending claims are respectfully requested.

Claim Rejections – 35 U.S.C. § 112

Claims 10, 12, 14, 16, 23, 25, 27, 29, 36, 38, 40, and 42 stand rejected under 35 USC 112, second paragraph, as being indefinite. These claims have been amended to address the Examiner's concerns.

Claim Rejections – 35 U.S.C. § 103

Claims 1-4, 6, 8, 10, 15, 17, 19, 21, 23, 28, 32, and 34 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamauchi et al. (2001/0045988) in view of Sato et al. (US 2003/0156204).

Claims 9, 11, 13, 22, 24, and 26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamauchi in view of Sato in further view of Enomoto (US 2002/0196472).

“To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. All words in a claim must be considered in judging the patentability of that claim against the prior art.” M.P.E.P. § 2143.03.

Amended independent claim 1 has been amended to include subject matter of dependent claims 2 and 5 deemed allowable by the Examiner. Accordingly, claim 1 now includes allowable subject matter. Consequently, Applicants request that the instant §103(a) rejections of claim 1 be withdrawn.

The dependent claims are nonobvious over the prior art of record for at least the same reasons as discussed above in connection with their respective independent claims, in addition to adding further limitations of their own. Accordingly, Applicants respectfully request that the instant §103 rejections of the dependent claims be withdrawn.

New Claims

New claim 43 includes subject matter of claims 2 and 18 deemed allowable by the Examiner. *Office Action* mailed 4/3/07, page 11, "Allowable Subject Matter."

New claim 45 includes subject matter of claims 2 and 30 deemed allowable by the Examiner. *Office Action* mailed 4/3/07, page 11, "Allowable Subject Matter."

New claim 46 includes subject matter of claims 2 and 31 deemed allowable by the Examiner. *Office Action* mailed 4/3/07, page 11, "Allowable Subject Matter."

New claim 44 includes the subject matter of dependent claim 3. In particular, claim 44 (and dependent claim 3) recite, in pertinent part,

multiplying a Y component of the image processed YUV data by a Y correction value;
adding a U component of the image processed YUV data to a U correction value; and
adding a V component of the image processed YUV data to a V correction value."

Applicants respectfully submit that the combination of Sato and Yamauchi fails to disclose, teach, or suggest multiplying a Y correction value while adding the U and V correction values.

To be sure, the Office Action cites paragraphs 0047 and 0060-0062 of Sato as disclosing these elements of claim 44 (and claim 3). See *Office Action* mailed 4/3/07, page 4. However, these portions of Sato in fact state,

[0047] Correction coefficients corresponding to the above distance values *d* are output from the above-described lookup table 8. These correction coefficients are provided to a correction block 9, and the signals for each of the pixels read from the semiconductor image pick-up device 3 are corrected against peripheral light fall-off and similar according to the distance from the optical axis center position. **This correction block 9 generally comprises a multiplier which performs multiplication by correction coefficients; however, when an offset is to be added in performing corrections, an adder may also be provided. Also,**

circuits which perform corrections of other than peripheral light fall-off, such as, for example, color bleeds, may also be provided. (Emphasis added)

[0060] In the above embodiment, the correction block 9 can be provided after the camera signal processing block 10 to perform conversions, as shown in FIG. 5. Hence in this case, corrections are performed after the luminance signal (Y signal) and color-difference signals (Cb, Cr signals) have been separated, so that corrections can be performed independently for the luminance signals and the color-difference signals, correction of peripheral light fall-off for the luminance signals and color bleeds for the color-difference signals, for example.

[0061] The correction block 9 may be provided after the color interpolation processing block 13 within the camera signal processing block 10 as shown in FIG. 6, so that when the three color signals (R, G, B) are prepared by interpolation for all pixels, lens shading correction is performed. And in a device in which a plurality of image pick-up devices are provided as, for example, shown in FIG. 7, a correction block 91 may be provided to execute correction for each image pick-up device 3R, 3G, 3B.

[0062] In the above embodiment, the lookup table is represented as a single block in all cases; however, the lookup table 8 may be such as to record values for the three colors (R, G, B) and for the luminance signal (Y signal) and color-difference signals (Cb, Cr signals) as well.

Accordingly, these sections of Sato merely disclose that correction coefficients may be multiplied or added. However, these portions of Sato do not disclose that the **Y component is multiplied** by a Y correction value and that the **U and V components are added** to U and V correction values, respectively.

CONCLUSION

In view of the foregoing amendments and remarks, it is believed that the applicable rejections have been overcome and all claims remaining in the application are presently in condition for allowance. Accordingly, favorable consideration and a Notice of Allowance are earnestly solicited. The Examiner is invited to telephone the undersigned representative at (206) 292-8600 if the Examiner believes that an interview might be useful for any reason.

CHARGE DEPOSIT ACCOUNT

It is not believed that extensions of time are required beyond those that may otherwise be provided for in documents accompanying this paper. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a). Any fees required therefore are hereby authorized to be charged to Deposit Account No. 02-2666. Please credit any overpayment to the same deposit account.

Respectfully submitted,

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CERTIFICATE OF TRANSMISSION

I hereby certify that this correspondence is being submitted electronically via EFS Web on the date shown below to the United States Patent and Trademark Office.


Suzanne Johnston

7/3/07
Date